

WHAT IS CLAIMED IS:

1. An actuator for actuating an aircraft member, said actuator essentially comprising a screw and at least two nuts including a primary nut and a secondary nut that are
5 engaged on the screw, relative movement between the screw and the nuts generating said actuation, the secondary nut being disposed to take up the load on the screw in the event that the primary nut fails, the actuator further comprising a third nut, the secondary nut and the third
10 nut having mutually overlapping portions, and a breakable pin passing through said overlapping portions, the third nut being constrained to turn with the secondary nut by the pin so that, after the pin breaks, the third nut is free to turn relative to the secondary nut, wherein the
15 pin carries a head extending towards the screw, and a spring organized to push said head away against the screw when the pin breaks, so as to brake the turning of the third nut relative to the screw after the pin has broken.
- 20 2. An actuator according to claim 1, wherein clearances exist between the third nut and the screw, and between the secondary nut and the screw, the clearance of the third nut being smaller than the clearance of the secondary nut, so that moving the secondary nut in
25 translation into its clearance causes the pin to break before mechanical co-operation takes place between the secondary nut and the thread of the screw.
3. An actuator according to claim 1, wherein the
30 secondary nut and the third nut have respective facing faces that are transverse to the direction of the screw and that are organized to come into abutment with each other by moving relative to each other along the screw and then to prevent the secondary nut from turning
35 relative to the screw.

4. An actuator according to claim 1, wherein the pin has an electrical link running through it so that the secondary nut moving relative to the third nut causes the pin to break by shearing and causes the electrical link to break.

5. An actuator according to claim 4, wherein clearance between the secondary nut and the third nut is chosen to cause the pin to break by shearing, without causing the electrical link to break by shearing, a spring being provided on the pin so as to push apart the portions separated by the shearing, and so as then to cause the link to break by having longitudinal traction applied to it.

6. An actuator according to claim 1, wherein the pin extends in a direction that is radial relative to the main axis of the screw.

7. An actuator according to claim 1, wherein the pin has two wider heads and is provided with two helical springs, each of which is placed between a wider head and an overlapping portion of a respective nut.

8. An actuator according to claim 1, wherein the electrical link extends over a go-and-return path inside the pin, the bend in which path is situated in the vicinity of that end of the pin which is closer to the screw.

9. An actuator according to claim 1, constituting an actuator of the ball type, roller type, or wheel type, i.e. in which a primary nut has a series of balls, rollers, or wheels on its face facing the screw for the purpose of providing moving contacts between the screw and the nut.